

Saint Paul Heritage Preservation Commission
Department of Planning and Economic Development
25 Fourth Street West, Suite 1400
Saint Paul, MN 55102
Phone: (651) 266-9078

HERITAGE PRESERVATION COMMISSION DESIGN REVIEW APPLICATION

This application must be completed in addition to the appropriate city permit application if the affected property is an individually designated landmark or located within an historic district. For applications that must be reviewed by the Heritage Preservation Commission refer to the HPC Meeting schedule for meeting dates and deadlines.

1. CATEGORY

Please check the category that best describes the proposed work

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Repair/Rehabilitation | <input type="checkbox"/> Sign/Awning | <input type="checkbox"/> New Construction/Addition/ |
| <input type="checkbox"/> Moving | <input type="checkbox"/> Fence/Retaining Wall | Alteration |
| <input type="checkbox"/> Demolition | <input checked="" type="checkbox"/> Other <i>Reducting</i> | <input type="checkbox"/> Pre-Application Review Only |

2. PROJECT ADDRESS

Street and number: 613 Greenbrier St Zip Code: 55106

3. APPLICANT INFORMATION

Name of contact person: Chelsea Laughlin - Molly McGrane (8/1/13)

Company: Window World

Street and number: 2211 11th Ave E, Ste 130

City: North St Paul State: MN Zip Code: 55109

Phone number: (651) 770-9011 e-mail: Chelsea.L@WindowWorldmn.com

4. PROPERTY OWNER(S) INFORMATION (If different from applicant)

Name: Ken Dickinson

Street and number: 613 Greenbrier St

City: St. Paul State: MN Zip Code: 55106

Phone number: (651) 774-6539 e-mail: _____

5. PROJECT ARCHITECT (If applicable)

Contact person: _____

Company: _____

Street and number: _____

City: _____ State: _____ Zip Code: _____

Phone number: (____) _____ e-mail: _____

6. PROJECT DESCRIPTION

Completely describe ALL exterior changes being proposed for the property. Include changes to architectural details such as windows, doors, siding, railings, steps, trim, roof, foundation or porches. Attach specifications for doors, windows, lighting and other features, if applicable, including color and material samples.

Replacing 12 windows in existing openings.
The new windows are all vinyl double hungs

Attach additional sheets if necessary

7. ATTACHMENTS

Refer to the *Design Review Process sheet* for required information or attachments.

****INCOMPLETE APPLICATIONS WILL BE RETURNED****

ARE THE NECESSARY ATTACHMENTS AND INFORMATION INCLUDED?

☐ YES

Will any federal money be used in this project?
Are you applying for the Investment Tax Credits?

YES _____ NO ☒
YES _____ NO ☒

I, the undersigned, understand that the Design Review Application is limited to the aforementioned work to the affected property. I further understand that any additional exterior work to be done under my ownership must be submitted by application to the St. Paul Heritage Preservation Commission. Any unauthorized work will be required to be removed.

Signature of applicant: _____

Date: 7-10-13

Signature of owner: _____

Date: _____

FOR HPC OFFICE USE ONLY

Date received: 7/23/13

FILE NO. 13-035

District: BHDB/Individual Site: _____

Contributing/Non-contributing/Pivotal/Supportive/:

Type of work: Minor/Moderate/Major

____ Requires staff review

Supporting data: YES NO
Complete application: YES NO

The following condition(s) must be met in order for application to conform to preservation program:

It has been determined that the work to be performed pursuant to the application does not adversely affect the program for preservation and architectural control of the heritage preservation district or site (Ch.73.06).

HPC staff approval

Date _____

____ Requires Commission review

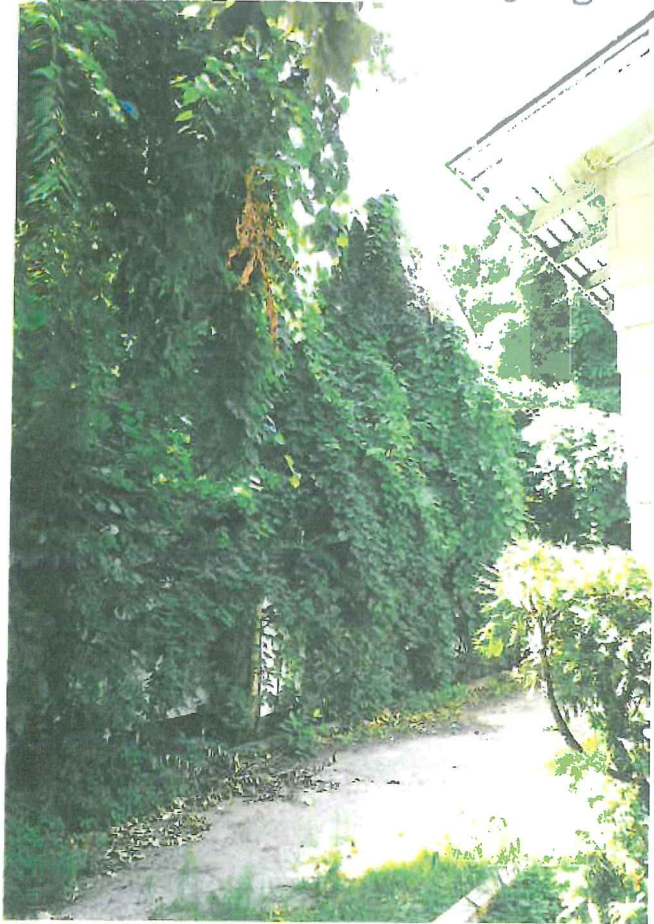
Submitted:

- ☐ 3 Sets of Plans
- ☐ 15 Sets of Plans reduced to 8 1/2" by 11" or 11" by 17"
- ☐ Photographs
- ☐ City Permit Application
- ☐ Complete HPC Design Review application

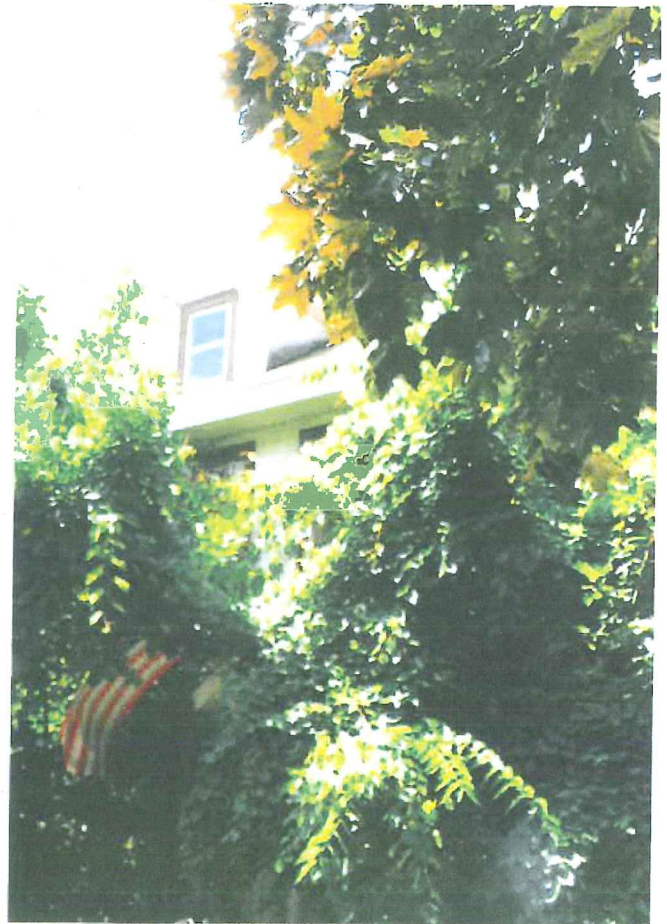
Hearing Date set for: _____

City Permit # 13-211634

* Right side of house



* Front

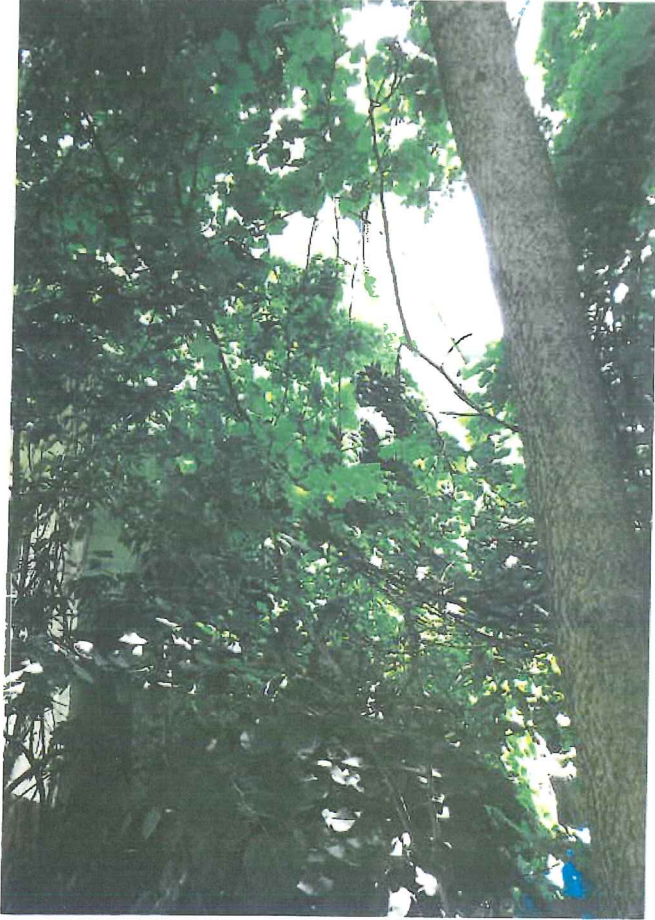


* Front

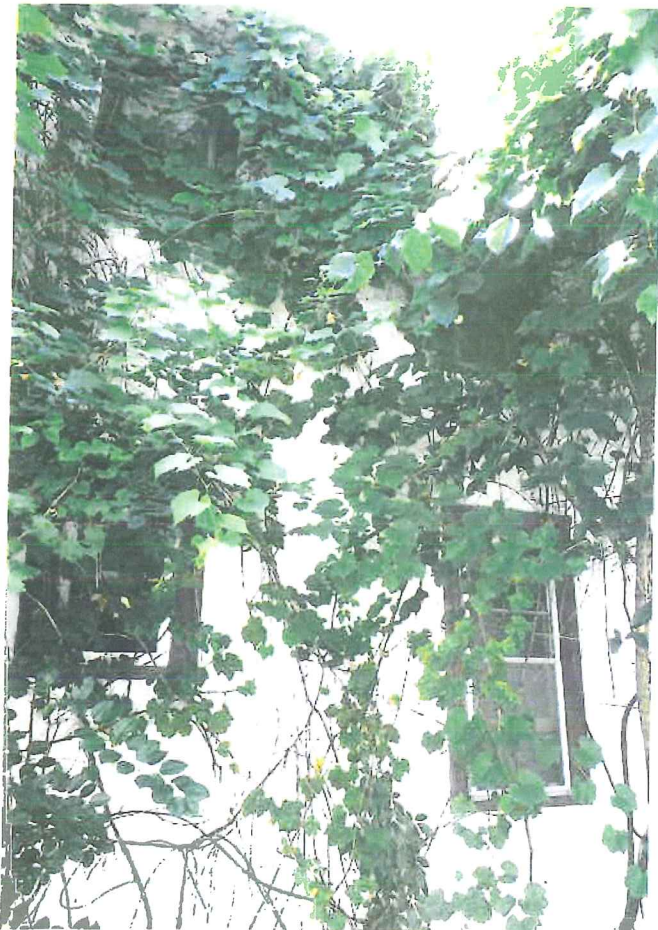


* Front

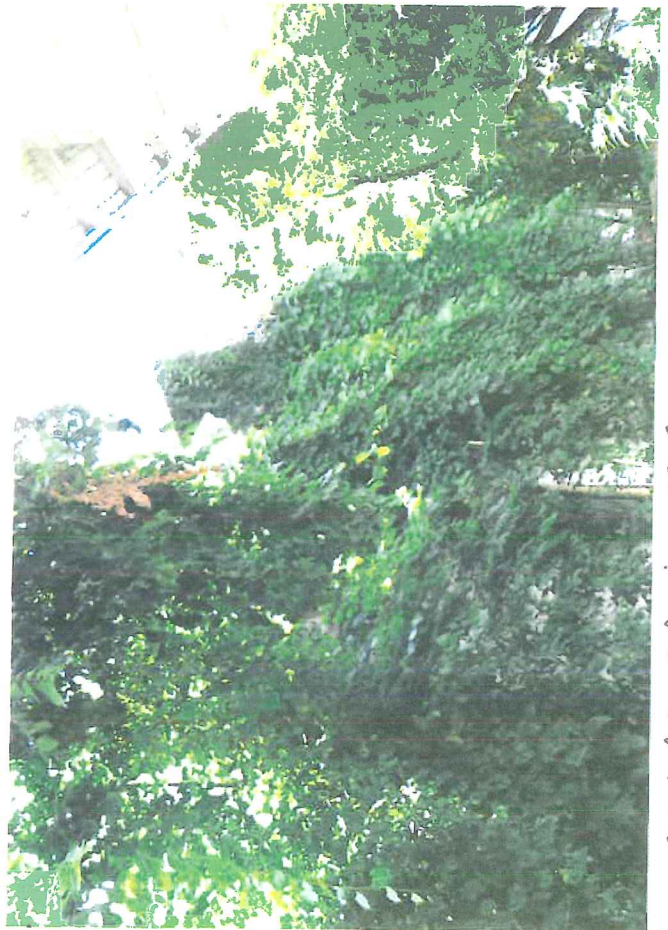
* Back of house



* Back



* side of house



* side of house



* Small locks - not secure



* Rope lever balances



* Rotting frames

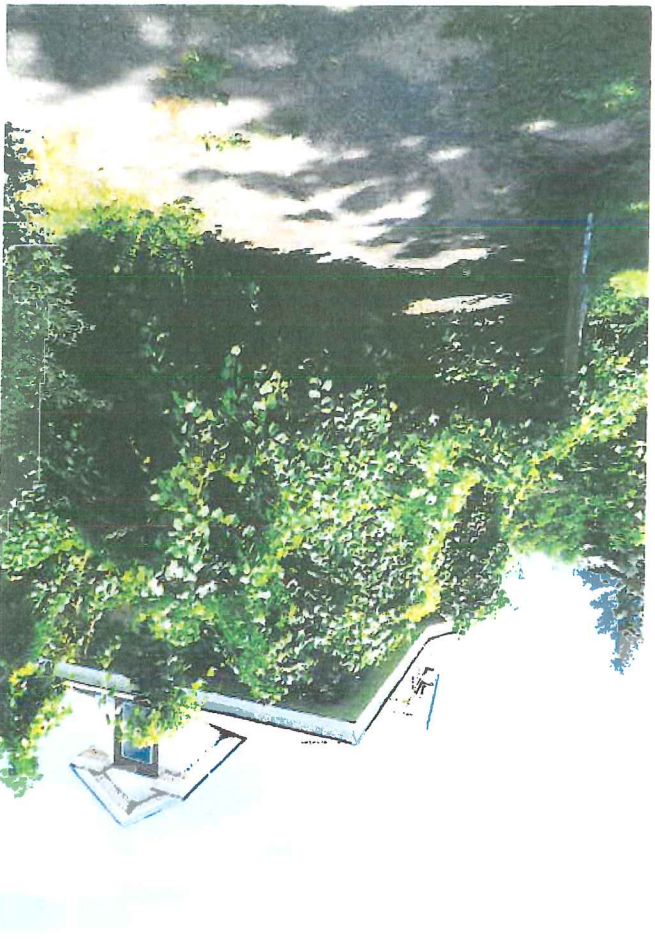
* Front of house



* Left side



* Left side



AMI ASSOCIATED MATERIALS
INCORPORATED

WINDOW AND PATIO DOOR ORDER FORM
ALL PRODUCT CONFIGURATIONS MUST BE
ORDERED AS VIEWED FROM THE EXTERIOR

7/2

Sold To:

Ken Dickinson
613-GranBrier St.
St. Paul, MN 55106

Ship To:

Window World Twin Cities #86161
2211 - 11th Ave East, Suite #130
North St. Paul, MN 55109-5536
Ph: 651-770-9011, Fax (651) 770-0495

Q1Y

OPTION CODES:

Woodgrain Interiors			Exterior	Mull Type	Grid Options			Screen Options			ETC = Energy Tax Credit			Glass Options		
LO = Light Oak	RM = Rich Maple	AT = American Terra	AT = American Terra	2 = Double	A1 = Colonial Flat Full	B1 = Colonial Contour Full	FS = Full Screen	AF = Alum SC Full	LE = Climate Tech	LEP = Climate Tech Plus	LEP = Climate Tech	LEP = Climate Tech	LEP = Climate Tech	LEP = Climate Tech	LEP = Climate Tech	LEP = Climate Tech
DO = Dark Oak	SM = Soft Maple	ER = English Red	ER = English Red	3 = Triple	A2 = Colonial Flat Top Only	B2 = Colonial Contour Top	LS = Locking Screen	AH = Alum SC Half	LEP = Climate Tech Plus	GT = Gray Tint	GT = Gray Tint	GT = Gray Tint	GT = Gray Tint	GT = Gray Tint	GT = Gray Tint	GT = Gray Tint
CH = Cherry		ARB = Arch Bronze	ARB = Arch Bronze	Q = 1/4, 1/2, 1/4	A3 = Colonial Flat Ends Only	B3 = Colonial Contour Ends	NOTE: For other grid options see back of form.		LE2 = Climate Tech 2	BT = Bronze Tint	BT = Bronze Tint	BT = Bronze Tint	BT = Bronze Tint	BT = Bronze Tint	BT = Bronze Tint	BT = Bronze Tint
WH = White		FG = Forest Green	FG = Forest Green	S = Special	A4 = Colonial Flat Center Only	B4 = Colonial Contour Center	NOTE: For other grid options see back of form.		LM = Laminated							
FX = Foxwood		CG = Castle Grey	CG = Castle Grey				NOTE: Grooved glass must be specified in instructions. See Price Book for style and availability									
		HK = Hudson Khaki	HK = Hudson Khaki				NOTE: Grooved glass must be specified in instructions. See Price Book for style and availability									

NOTE: Hinge Left (HL) or Hinge Right (HR) on all casement orders as viewed from the exterior. Add "EH" for Egress Hinge.

ALL PRODUCT CONFIGURATIONS MUST BE ORDERED AS VIEWED FROM THE EXTERIOR.

LINE	QTY	MODEL	VINYL COLOR	WDOGRN INT/EXT	WIDTH	HEIGHT	MULL TYPE	ROOM LOCATION	HINGE	GLASS OPTION	GRID OPTIONS STYLE	PATTERN	OBS FULL	OBS BOT	TEMP FULL	TEMP BOT	SCREEN	FOAM WRAP	FOAM FILL	Oriel DIM	GLASS BREAK	NAIL FIN	HR COP
1	1	0220/WH	WH	WH	29 5/8	6 13/8		DOWN	ETG	ETG							1/2	X			X		X
2	1	1	1	1	27 5/8	6 13/8		UP							X			X			X		X
3	1	1	1	1	27 5/8	6 13/8		LIV.										X			X		X
4	1	1	1	1	33 5/8	6 13/8		BED										X			X		X
5	1	1	1	1	33 5/8	6 13/8		"										X			X		X
6	1	1	1	1	27 5/8	6 13/8		DINE										X			X		X
7	1	1	1	1	33 5/8	6 13/8		"										X			X		X
8	1	1	1	1	27 5/8	6 13/8		"										X			X		X
9	1	1	1	1	31 1/2	6 11/2		"										X			X		X
10	1	1	1	1	29 5/8	6 13/8		BED										X			X		X

SKETCHES:

SPECIAL INSTRUCTIONS:

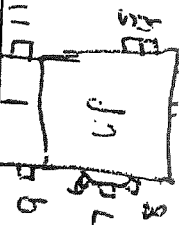
All Windows DS Glass

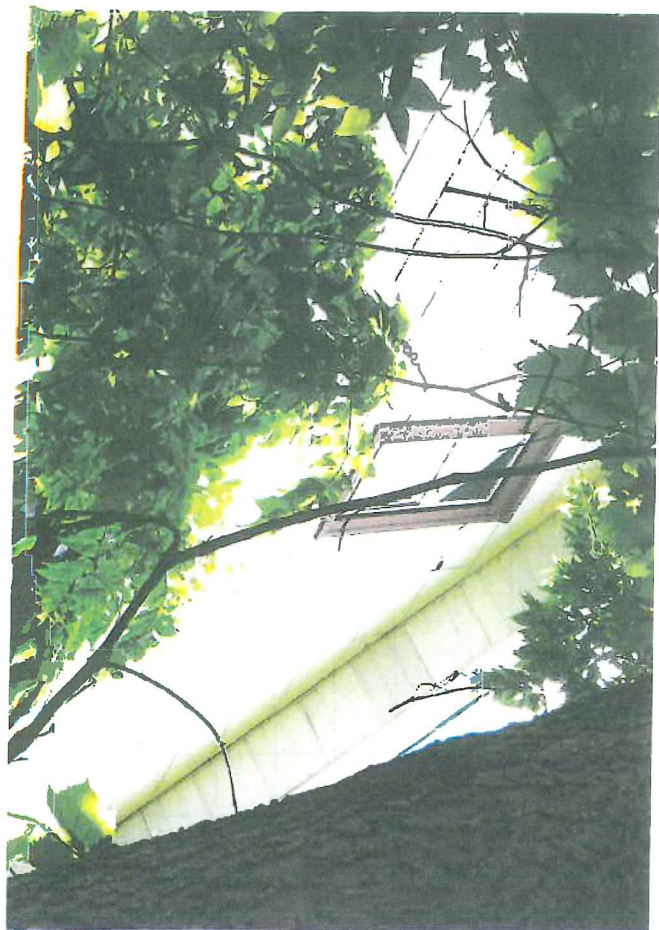
Lines 1-10

Aluminum Screens

7-9-10 Cntr 72

NO MAT. LIST.





to back of house

AMI ASSOCIATED MATERIALS
INCORPORATED

WINDOW AND PATIO DOOR ORDER FORM

ALL PRODUCT CONFIGURATIONS MUST BE
ORDERED AS VIEWED FROM THE EXTERIOR

2 of 2

Sold To:

KEN DICKINSON
613-GEEN RICE ST.
ST. PAUL, MN

Ship To:

Window World Twin Cities #861161
2211 - 11th Ave East, Suite #130
North St. Paul, MN 55109-5536
Ph: 651-770-9011, Fax (651) 770-0495

014

OPTION CODES:

Woodgrain Interiors			Exterior	Mull Type	Grid Options			Screen Options			ETC = Energy Tax Credit			Glass Options		
LO = Light Oak	RM = Rich Maple	AT = American Terra	ER = English Red	2 = Double	A1 = Colonial Flat Full	B1 = Colonial Contour Full	FS = Full Screen	AF = Alum SC Full	LE = ClimateTech	LEP = ClimateTech Plus	LE = ClimateTech	LEP = ClimateTech Plus	LEP = ClimateTech T2	GR = Grooved Glass	GT = Gray Tint	SC = Sunclean
DO = Dark Oak	SM = Soft Maple	AR = Arch Bronze	DC = Desert Clay	Q = 1/4, 1/2, 1/4	A2 = Colonial Flat Top Only	B2 = Colonial Contour Top	LS = Locking Screen	AH = Alum SC Half	LEP = ClimateTech 2	LEP = ClimateTech 2	LEP = ClimateTech 2	LEP = ClimateTech 2	LEP = ClimateTech 2	LM = Laminated	BT = Bronze Tint	LM = Laminated
CH = Cherry		FG = Forest Green	CG = Castle Grey	S = Special	A3 = Colonial Flat Ends Only	B3 = Colonial Contour Ends	NOTE: Fiberglass half screen are standard			NOTE: Grooved glass must be specified in instructions. See Price Book for style and availability						
WH = White		HK = Hudson Khaki			A4 = Colonial Flat Center Only	B4 = Colonial Contour Center	NOTE: For other grid options see back of form.									
FX = Foxwood																

NOTE: Hinge Left (HL) or Hinge Right (HR) on all casement orders as viewed from the exterior. Add "EH" for Egress Hinge.

ALL PRODUCT CONFIGURATIONS MUST BE ORDERED AS VIEWED FROM THE EXTERIOR.

LINE	QTY	MODEL	VINYL COLOR	WDCRN INT/EXT	EXACT WINDOW SIZE		MULTI TYPE	ROOM LOCATION	HINGE	GLASS OPTION	GRID OPTIONS		OBS FULL	OBS BOTT	TEMP FULL	TEMP BOTT	SCREEN	FOAM WRAP	FOAM FILL	ORIEL DIM	GLASS BREAK	NAIL FIN	HDR EXPN
					WIDTH	HEIGHT					STYLE	PATTERN											
1	1	2201	WH	WH	29 5/8	61 3/8		Bed		Le							1/2	X			X		X
2	1	2201	WH	WH	23 5/8	41 1/2		Tub		Le					X		1/2	X			X		X
3																		X			X		X
4																		X			X		X
5																		X			X		X
6																		X			X		X
7																		X			X		X
8																		X			X		X
9																		X			X		X
10																		X			X		X

SPECIAL INSTRUCTIONS:

All Windows DS Glass

SKETCHES:

Lives 114121 Aluminum Screens

Select a Model

(Model 0201)	
Excalibur Double Hung	
Top Sash Width	26.3750
Top Sash Height	29.1250
Bottom Sash Width	27.3750
Bottom Sash Height	30.1250
Top Glass Width	24.6875
Top Glass Height	27.4375
Bottom Glass Width	25.6875
Bottom Glass Height	28.4375
Screen Width	25.9375
Screen Height	30.3750
Top Sash Weight (Plus 5 lb)	24 lb
Top Balance Size (C.F)	66YW
Top Balance Size (Spiral)	25-10R
Bottom Sash Weight	21 lb
Bottom Balance Size (C.F)	56BU
Bottom Balance Size (Spiral)	29-9R
Egress Opening Width	25.2190
Egress Opening Height	23.9375
Egress Opening Area (sq.ft.)	4.1920

Min. W: 11	Max W: 52	
Min. H: 20	Max H: 84	Max UI: 132

	Width	Exact Size
Width:	29 5/8	29 625
Height:	61 3/8	61 375

Extrusion: << For Arch-Top Models Only

Opening:

Type:

Screen:

Glass:

☐ AC Sash Calculator

Line # 1, 10, 11

Select a Model

(Model 0201)	
Excalibur Double Hung	
Top Sash Width	24.3750
Top Sash Height	29.1250
Bottom Sash Width	25.3750
Bottom Sash Height	30.1250
Top Glass Width	22.6875
Top Glass Height	27.4375
Bottom Glass Width	23.6875
Bottom Glass Height	28.4375
Screen Width	23.9375
Screen Height	30.3750
Top Sash Weight (Plus 5 lb)	23 lb
Top Balance Size (C.F)	66YW
Top Balance Size (Spiral)	25-8R
Bottom Sash Weight	20 lb
Bottom Balance Size (C.F)	10PK
Bottom Balance Size (Spiral)	29-8R
Egress Opening Width	23.2190
Egress Opening Height	23.9375
Egress Opening Area (sq.ft.)	3.8600

Min. W: 11	Max W: 52	
Min. H: 20	Max H: 84	Max UI: 132

	Exact Size
Width: 27 5/8	27.625
Height: 61 3/8	61.375

Extrusion:	Select Extrusion	▼	<- For Arch-Top Models Only
Opening:	Exact Size	▼	
Type:	Standard	▼	
Screen:	Half	▼	
Glass:	Double Strength (3 mm)	▼	

☐ AC Sash Calculator

Line # 2, 3, 4, 8

Select a Model

(Model 0201)	
Excalibur Double Hung	
0201	▼
Top Sash Width	30.3750
Top Sash Height	29.1250
Bottom Sash Width	31.3750
Bottom Sash Height	30.1250
Top Glass Width	28.6875
Top Glass Height	27.4375
Bottom Glass Width	29.6875
Bottom Glass Height	28.4375
Screen Width	29.9375
Screen Height	30.3750
Top Sash Weight (Plus 5 lb)	27 lb
Top Balance Size (C.F)	77LG
Top Balance Size (Spiral)	25-12R
Bottom Sash Weight	24 lb
Bottom Balance Size (C.F)	66YW
Bottom Balance Size (Spiral)	29-11R
Egress Opening Width	29.2190
Egress Opening Height	23.9375
Egress Opening Area (sq.ft.)	4.8570

Min. W: 11	Max W: 52	
Min. H: 20	Max H: 84	Max UI: 132

	Exact Size
Width: 33 5/8	33.625
Height: 61 3/8	61.375

Extrusion:	Select Extrusion ▼	<< For Arch-Top Models Only
Opening:	Exact Size ▼	
Type:	Standard ▼	
Screen:	Half ▼	
Glass:	Double Strength (3 mm) ▼	

☐ AC Sash Calculator

Line # 4, 5, 7

Select a Model

(Model 0201)	
Excalibur Double Hung	
Top Sash Width	28.3750
Top Sash Height	29.1250
Bottom Sash Width	29.3750
Bottom Sash Height	30.1250
Top Glass Width	26.6875
Top Glass Height	27.4375
Bottom Glass Width	27.6875
Bottom Glass Height	28.4375
Screen Width	27.9375
Screen Height	30.3750
Top Sash Weight (Plus 5 lb)	26 lb
Top Balance Size (C.F)	67GN
Top Balance Size (Spiral)	25-11R
Bottom Sash Weight	23 lb
Bottom Balance Size (C.F)	66YW
Bottom Balance Size (Spiral)	29-10R
Egress Opening Width	27.2190
Egress Opening Height	23.9375
Egress Opening Area (sq.ft.)	4.5250

Min. W: 11	Max W: 52	
Min. H: 20	Max H: 84	Max Ul: 132

Exact Size	
Width: 31 5/8	31.625
Height: 61 3/8	61.375

Extrusion:	Select Extrusion	<< For Arch-Top Models Only
Opening:	Exact Size	
Type:	Standard	
Screen:	Half	
Glass:	Double Strength (3 mm)	

☐ AC Sash Calculator

Line #9

Select a Model

(Model 0201)	
Excalibur Double Hung	
Top Sash Width	20.3750
Top Sash Height	19.1875
Bottom Sash Width	21.3750
Bottom Sash Height	20.1875
Top Glass Width	18.6875
Top Glass Height	17.5000
Bottom Glass Width	19.6875
Bottom Glass Height	18.5000
Screen Width	19.9375
Screen Height	20.4375
Top Sash Weight (Plus 5 lb)	14 lb
Top Balance Size (C.F)	7GN
Top Balance Size (Spiral)	15-4R
Bottom Sash Weight	11 lb
Bottom Balance Size (C.F)	6YW
Bottom Balance Size (Spiral)	19-3R
Egress Opening Width	19.2190
Egress Opening Height	14.0000
Egress Opening Area (sq.ft.)	1.8690

Min. W: 11	Max W: 52	Max Ul: 132
Min. H: 20	Max H: 64	

	Exact Size
Width: 23 5/8	23.625
Height: 41 1/2	41.5

Extrusion: << For Arch-Top Models Only

Opening:

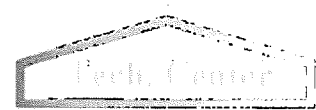
Type:

Screen:

Glass:

☐ AC Sash Calculator

Line #12



Tools IG Guideline Grid/Muntin FAQ Links

| [Calculated Specs](#) | [Min. Max. Calculator](#) | [Shape Calculator](#) | [Condensation](#) | [SPEC](#) | [Chemical Compatibility](#) |

Region Series Model Glass Package
East Coast Excalibur 0201 Climatech-2 + IE-Liner

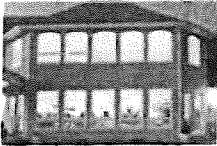
Model: 0201 / Series: Excalibur, (Double Hung)

Performance Over View Parts Installation Search U-Value

		Window Efficiency				
Model	GlassPack	Glass Thickness	Description	U-Value	SHGC	VT CR BR
0201	Climatech-2 + IE-Liner	Double Strength	13/16" IG, DS LOE2-IE-Liner, Argon	0.30	0.28	0.49 57 17
0201	Climatech-2 + IE-Liner	Triple Strength	13/16" IG, TS LOE2-IE-Liner, Argon			

Structural Test Results										
Model	Width	Height	DP	Air	Water	Load	FBC	TDI	Description	Report No.
0201	36	60	50	0.15	9.20	+/- 75	11720		Two Locks / No Stile Reinforcement	97028.02
0201	36	72	50	0.15	9.20	+/- 75	11720	WIN-547	Standard	97028.02
0201	36	78	45	0.15	9.20	+/- 67.7	11720	WIN-547	Standard	97028.02
0201	44	60	45	0.15	9.20	+/- 37.6	11720		No Stile Reinforcement / 2 Locks / Bottom Rail Retention Blocks	83156.02
0201	52	62	35	0.12	9.20	+60 / - 52.6	11720	WIN-547	Standard	97028.02
0201	44	77	35	0.12	9.20	+/- 52.6	11720	WIN-547	Standard	97028.02
0201	48	84	30	0.12	9.20	+52.6 / - 45	11720	WIN-547	Standard	97028.02
0201	44	77	25	0.15	9.20	+/- 37.6	11720	WIN-547	One Lock / No Stile Reinforcement	97028.02
0201	44	60	25	0.15	9.20	+45 / - 37.6	11720		Two Locks / No Stile Reinforcement	97028.02
0201	52	96	20	0.12	9.20	+/- 30	11720		Standard	97028.02

Acoustical Test Results			
Glass Package			STC
13/16" IG (1/8" Annealed, 9/16" Air space, 1/8" Annealed)			27
			22



[Tools](#) [IG Guideline](#) [Grid/Muntin](#) [FAQ](#) [Links](#)

[Calculated Specs](#) | [Min. Max. Calculator](#) | [Shape Calculator](#) | [Condensation](#) | [SPEC](#) | [Chemical Compatibility](#)

Region	Series	Model	Glass Package
East Coast	Excalibur	0201	Climatech-2 + iE-Liner

Model: 0201 / Series: Excalibur, (Double Hung)

[Performance](#) [Over View](#) [Parts](#) [Installation](#) [Search U-Value](#)

Base Color: White / Beige

Optional Colors & Laminates: [See Chart](#)

Frame Construction: Welded

Frame Extrusion Thickness: 0.071

Frame Air Chambers: 6

Frame Depth: 3-1/4"

Exterior Frame Design: Beveled

Sill Design: Slope

Triple Seal Sill: No

Accessory Groove: Yes

Snap Leg: Yes

Head Expander: Optional

Sill Angle: Standard

Mullion Type: UI0039 / UI0042

Min. Width: (11) | Min. Height: (20)

Max. Width: (52) | Max. Height: (84)

Max. UI: (132)

Sash Construction: Welded

Sash Extrusion Thickness: 0.071

Sash Air Chambers: 1

Slide Handle: Yes

Sash Interlock: Yes

Tilt Latches: Low Profile

Horizontal Reinforcement: Lock & Keeper Rails

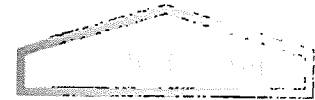
Vertical Reinforcement: Stiles as needed

Reinforcement Material: Steel

Limit Lock: 2

IG Thickness: 0.8125

Standard Spacer: Intercept



[Tools](#) [IG Guideline](#) [Grid/Muntin](#) [FAQ](#) [Links](#)

[Calculated Specs](#) | [Min. Max. Calculator](#) | [Shape Calculator](#) | [Condensation](#) | [SPEC](#) | [Chemical Compatibility](#) |

Region	Series	Model	Glass Package
East Coast	Excalibur	0201	Climatech-2 + IE-Liner

Model: 0201 / Series: Excalibur, (Double Hung)

[Performance](#) [Over View](#) [Parts](#) [Installation](#) [Search U-Value](#)

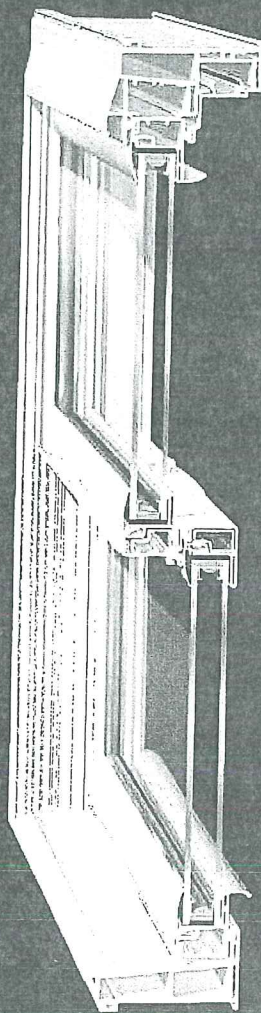
Bottom Sash

Row	Description	Product Code	Part Number
01	Bottom sash (Order by size, color)		0201-Bottom-Sash
02	Insulated glass pack		
03	Glazing bead	UI0001XX	<u>490781XX</u>
04	Weather Stripping (0.30 x 0.187)	UJ002101	<u>49200500</u>
05	Weather Stripping (0.350 x 0.187)	UJ004401	<u>49016301</u>
06	Weather Stripping (0.260 x 0.187)	UJ004301	<u>49016201</u>
07	Bulb seal	UJ004701	<u>49035401</u>
08	Tilt Latch (Left hand)	US0122XX	<u>490349XX</u>
09	Tilt Latch (Right hand)	US0121XX	<u>490348XX</u>
10	Dust plug	UJ003200	<u>49058200</u>
11	Sweep Lock	UM0081XX	<u>490342XX</u>
12	Lock screw (#8 x 3/4 PHFH Tek w/ #6 head)	UZ0150XX	<u>492102XX</u>
13	Pivot bar	US021500	<u>49200000</u>
14	Pivot bar screw (#8 x 5/8 Type A PH TR)	UZ012800	<u>49077700</u>
15	Glazing Tape	US079210	<u>49032300</u>
16	Glass Setting block	UM010700	<u>49034600</u>

A WINDOW TO SUIT EVERY NEED

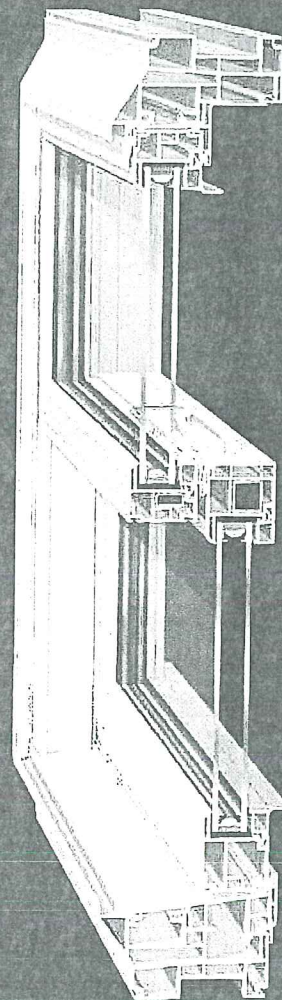


Information
provided, but
style choice
not confirmed
(p. 9-16)



Window World 4000 Exclusive Features:

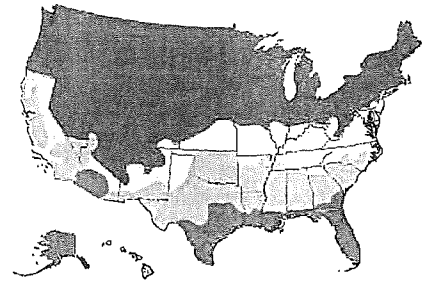
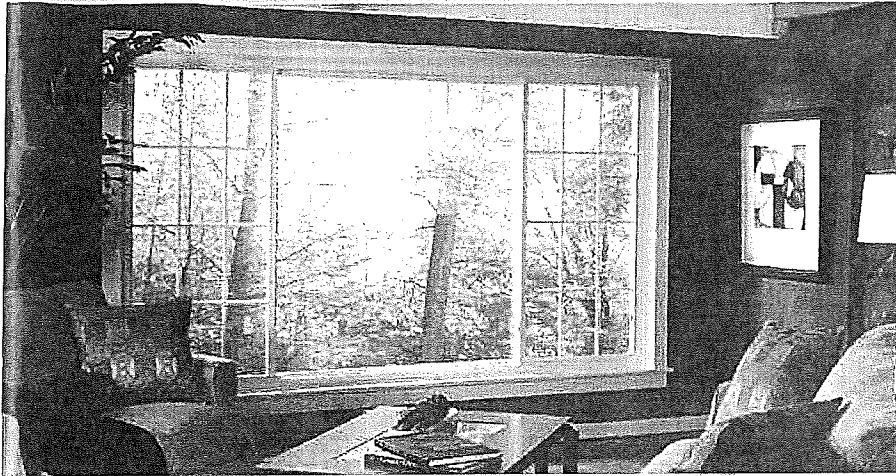
- Fusion-welded sashes and mainframe for added strength and rigidity.
- Beveled exterior mainframe for a clean, elegant look.
- Hidden screen track for clean lines and added beauty.
- Sloped sill forces water to drain to the exterior of the window.
- Double barrier weather seal at sash perimeters help keep out dirt and protect against air infiltration.
- Protective bulb at the sill seals out dust, dirt and air infiltration.



Window World 6000 Features:

- Fusion-welded sashes and mainframe structure add strength and rigidity. Multiple extra-thick extrusion walls provide additional durability and insulation to the window frame.
- Beveled exterior mainframe and sash and hidden screen track for added beauty.
- Double lift rails provide strength and stability for easy operation.
- Quad-4 weatherstripping at the header for added protection from the elements.
- Triple-barrier weatherstripping provides superior protection against dirt and air infiltration.
- Sloped sill enhances protection from the elements.

Meticulously crafted with attention to every detail, Window World Windows are available in a full selection of styles so that you design the ideal window system for your home.



The Following Features are Standard on all Window World Windows.

- Vinyl frame and sashes are made tough and solid with a uPVC compound that will never chip, peel, crack or warp.
- Multi-chambered sash and mainframe for superior thermal efficiency.
- Intercept® Warm-Edge Spacer System maximizes performance and longevity.
- Interlock at sash meeting rails creates a super-tight seal against air infiltration while adding security.
- Drop-in glazing for extra protection from the elements.
- Fully extruded lift rails provide strength and stability for easy operation.

Plus These Additional Features:

- Dual vent stops for controlled ventilation and airflow.
- Full balance covers help protect against air infiltration while adding a finished appearance.
- Constant force balance system eliminates sash cords, weights and pulleys. You'll benefit from smooth, comfortable fingertip operation.
- Tilt-in top and bottom sashes make cleaning safe and easy from inside the home.

Enhance Your Windows with These Options:

- SolarZone Insulated Glass Packages featuring Low-E glass and the Intercept Warm-Edge Spacer System for enhanced insulating performance.
- Full or half fiberglass screens provide ventilation while keeping insects out.*
- Standard, contoured or brass grids are placed between the panes for easy cleaning.
- Specialty V-grooved glass for a truly custom look.

*Full screens are standard on exterior color-finished windows.

All Window World Windows are manufactured to the stringent testing guidelines set forth by the American Architectural Manufacturers Association (AAMA) and the National Fenestration Rating Council (NFRC).



The American Architectural Manufacturers Association is recognized internationally for the development of standards that provide third-party validation of product performance and quality. Because all Window World Windows are certified for structural, air, and water performance, as well as thermal performance, they bear the prestigious AAMA Gold Label.



The National Fenestration Rating Council establishes test criteria that set the standard for performance ratings of window and door products. These consistent ratings provide accurate information on the energy performance of windows, doors and skylights.



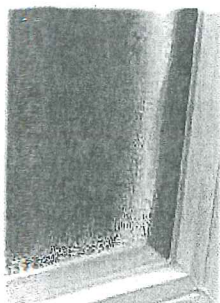
ENERGY STAR is a joint program between the U.S. Department of Energy (U.S. DOE) and the U.S. Environmental Protection Agency (EPA). It assists consumers in recognizing energy-efficient products and promoting the environmental and economic benefits of these products through labeling and other activities.

SOLARZONE™ INSULATED GLASS PACKAGES

HELP SAVE ENERGY AND THE ENVIRONMENT.

Upgrade Your Windows with Our SolarZone Insulated Glass Package.

Window World Windows are already designed for superior thermal performance. By choosing one of our SolarZone Insulated Glass Packages featuring Low-E glass, argon gas and a warm-edge spacer system, you can help reduce your energy use even more, while helping cut consumption of the fossil fuels that pollute our environment. Window World offers many ENERGY STAR qualified glass packages. Ask your representative for more details.



Traditional Box-Shaped Spacer

Heat transfer through traditional box-shaped spacers, used to separate glass layers, can increase heat loss and cause condensation to form on the edge of the glass.

What Makes the SolarZone Insulated Glass Packages so Effective?

Since 80% of a window is glass, substantial heating and cooling savings come from improved glass performance.

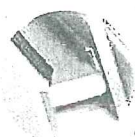
- Our combination of UV-filtering Low-E glass, insulating argon gas and a warm-edge spacer system creates significant energy efficiency. Together they can cut damaging UV energy, which can lead to the fading of carpets, curtains and furniture by over 75%.
- The center of glass U-Value of SolarZone Insulating Glass is 50% better than standard insulating glass.
- In summer, up to a 58% reduction in solar heat gain helps reduce air conditioning costs.

The result: SolarZone Insulated Glass Packages can help you save on energy and cooling costs while keeping your home more comfortable.

Comfortable Rooms Start with a Warm-Edge Spacer System.

Warm-edge spacers are so energy-efficient that they keep the glass of the window warmer so your home feels more comfortable in the cooler months. Window World Windows offer two high-performance spacers which can help your home benefit from additional energy efficiencies.

The Benefits of the Intercept Spacer System.



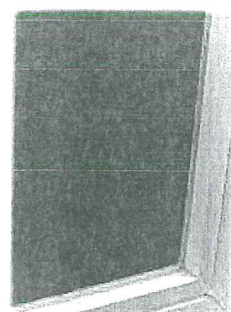
The Intercept Spacer System features a unique, one-piece metal alloy, U-channel design that creates an effective thermal barrier to help reduce conducted heat loss through the window. Its sealed, one-piece design makes Intercept spacers stronger and better at retaining insulating gas than many conventional designs.

The Intercept Spacer System is nearly 25% more effective than a traditional box-shaped spacer at the edge of the glass unit.

The Optional Foam Spacer System.



The optional Foam Spacer System is unique in its patented design. By combining a structural foam spacer with a seal of hot melt butyl to create a non-conductive edge, the non-metal Foam Spacer System eliminates any metal to glass contact, thereby increasing the edge of glass temperatures by over 16 degrees, which proves to be over 60% more energy-efficient than a traditional box-shaped spacer.



Warm-Edge Technology

A warm-edge spacer is designed to block the path of heat transfer from the interior of the window to the exterior, thereby reducing heat loss and condensation. The result is warmer glass edges and a more comfortable room.

Choose one of our SolarZone Insulated Glass Packages to enhance the year-round comfort of your home while maximizing energy savings.

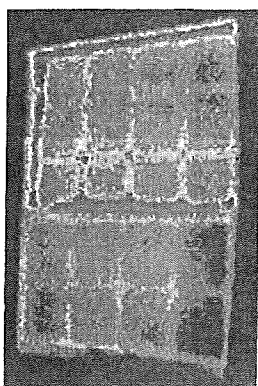
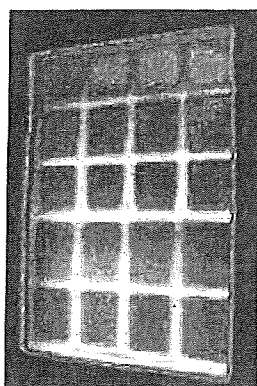
The SolarZone Low-E Glass Package – Making the Difference.

A warm-edge spacer system is just one way of increasing your window's performance. SolarZone Low-E glass is an excellent option to help increase your home's comfort and energy savings year-round. SolarZone Low-E glass is created by applying a microscopic,

Heat Photographs (Infrared Thermography).

Standard Clear Glass

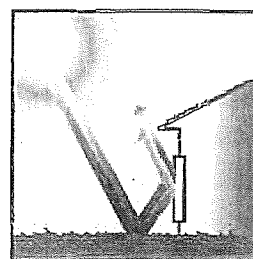
SolarZone Insulating Glass



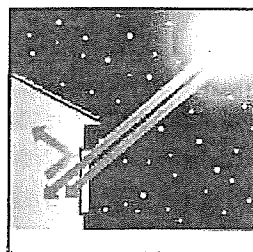
Heat scale

undetectable metallic coating to the second surface of an insulated glass unit. This coating helps to block heat gain in the summer while retaining furnace heat and allowing warm short wave solar rays in the winter.

The thermographs (left) clearly show the effect that Low-E glass has when contained in an insulated glass unit. The window on the left is a clear insulated glass unit. The heat transmittance, indicated by the green, yellow and orange colors from the heat scale, is far more apparent than that of the window containing the SolarZone Low-E insulated glass unit.



Low-E coatings help keep your home warm in winter by reflecting heat back into the room.



Low-E coatings help keep your home cool in summer by blocking heat from entering the room.

SolarZone Insulated Glass Packages.

The optional SolarZone Insulated Glass Package combines multi-layered, vacuum deposition Low-E glass with argon gas and a warm-edge spacer system. These insulated glass packages have proven to be far more effective than ordinary clear glass units. The National Fenestration Rating Council (NFRC), in conjunction with the U.S. Department of Energy (U.S. DOE), developed a rating system for window product performance.

One of the most critical NFRC tests is for the window's U-Value, which measures a window's resistance to heat transfer. The lower the U-Value, the better the window is at resisting heat flow, which results in a window with a greater insulating value.

Another critical NFRC test measures the Solar Heat Gain Coefficient (SHGC). This procedure measures how well a window blocks heat caused by sunlight. Again, the lower the number, the less of the sun's solar heat the window transmits into the home.

A quick comparison will show that your choice of an optional SolarZone Insulated Glass Package will outperform clear or lesser Low-E glass packages, leading to increased energy savings.

Window World Glass Performance Comparison

	4000 DH		6000 DH	
	U-Factor	SHGC	U-Factor	SHGC
SolarZone	.32	.30	.30	.27
SolarZone ETC	.30	.30	—	—
SolarZone Elite	.32	.21	.29	.19
SolarZone TG2	—	—	.23	.24
SolarZone TG2 Elite	—	—	.23	.18

Traditional Competitive Products

Clear Insulated	.48	.50	.45	.55
Single Pane	.85	.61	.85	.61

SolarZone:

SolarZone ETC:

SolarZone Elite:

SolarZone TG2:

SolarZone TG2 Elite:

Clear Insulated:

Single Pane: